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| BAKER BOTTS L.L.P. 2001 ROSS AVENUE 6TH FLOOR DALLAS, TX 75201 | | | EXAMINER MEW, KEVIN D | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOmail3@bakerbotts.com
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Office Action Summary

Application No.

09/935,780

Applicant(s)

FANG ET AL.

Examiner

Kevin Mew

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8, 13-20 is/are allowed.
- 6) ☒ Claim(s) 9-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

Final Action

Response to Amendment

1. Applicant's Arguments/Remarks filed on 7/24/2007 with respect to claims 9-12 have been considered. Claims 1-20 are currently pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Izawa et al. (USP 5,796,734) in view of Humphrey (USP 7,075,935 B1), and in further view of Satran et al. (USP 6,430,183).

Regarding claims 9 and 10, Izawa discloses an apparatus (**SMDS System**, see col. 1, lines 44-55) to perform a method for transporting a computer-readable data structure (see Figs 2 and 4), comprising:

a L2 (AAL/SAR) layer is composed of L2-PDUs (Fig. 10), comprising a first header section and a first payload section associated with the first header section (**a first L2-PDU comprises comprising a header section and a payload section in the first L2-PDU called BOM, and the first header section is associated with first payload section, see Fig. 10**), a second header section, and a second payload section associated with the second header section (**a second L2-PDU comprises a second header section and a second payload section in the last**

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L2-PDU called EOM, and the second header section is associated with second payload section, see Fig. 10), and a trailer section (a trailer section of the last L2-PDU, see Fig. 10), and wherein the first header section comprises a First Service Type field (the first header of a first L2-PDU comprises an access control field to indicate an upward transmission channel; note that upward transmission channel is considered as a first service type, see col. 3, lines 61-67 and col. 4, lines 1-4 and Fig. 4) and the second header section comprises a Second Service Type field (the second header of a second L2-PDU comprises an access control field to indicate a downward transmission channel; note that downward transmission channel is considered as a second service type, see col. 3, lines 61-67 and col. 4, lines 1-4 and Fig. 4), and wherein the first payload section contains a first portion of the data (first L2-PDU contains a first payload section, see Figs. 2 and 5) and the second payload section contains a second portion of the data (second L2-PDU contains a second payload section, see col. 3, lines 61-67 and col. 4, lines 1-4 and Figs. 2 and 5);

setting, responsive to the first portion of the data, the First Service Type field (**setting the access control field to indicate it is upward transmission channel, see col. 3, lines 61-67 and col. 4, lines 1-4);**

setting, responsive to the second portion of the data, the Second Service Type field (**setting the access control field to indicate it is downward transmission channel, see col. 3, lines 61-67 and col. 4, lines 1-4);**

transporting the packet through a communication system (**transporting protocol data units in a communication system, see col. 6, lines 46-60),**

extracting from the transported packet, responsive to the First Service Type field, the first portion of the data from the first payload section (**extracting the payload portion of the L2-PDUs in accordance with the upward transmission channel**, see col. 3, lines 61-67 and col. 4, lines 1-4); and

extracting from the transported packet, responsive to the Second Service Type field, the second portion of the data from the second payload section (**extracting the payload portion of the L2-PDUs in accordance with the downward transmission channel**, see col. 3, lines 61-67 and col. 4, lines 1-4).

Izawa does not explicitly show encapsulating the L2 (AAL/SAR) layer in a single packet.

However, Humphrey discloses encapsulating a plurality of AAL2 mini-cells in a superframe (col. 3, lines 54-55, col. 4, lines 63-67, col. 5, lines 1-16 and Fig. 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system and method of Izawa in showing a first header, a first payload, a first trailer, a second header and a second trailer in L2 (AAL/SAR) layer with the teaching of Humphrey in encapsulating a plurality of AAL2 mini-cells in a superframe such that show encapsulating the L2 (AAL/SAR) layer in a single packet/superframe.

The motivation to do so is to provide an engineering operations channel EOC frame/superframe (single packet) that facilitates multiplexing of messages associated with various network management layers over the EOC.

Izawa and Humphrey do not explicitly show the first and second payload sections carry data having different service types as identified by the First and Second Service Type fields.

However, Satran teaches a packet can be transmitted in a way that it can contain a plurality of block headers, wherein each of the block headers comprises a service type field to designate a different service type/mode to be provided (each block header comprises a service type field located in the first three bits of the address field, col. 5, lines 6-15, 23-25, col. 4, lines 17-60 and Fig. 2). In other words, each packet can be constructed using a plurality of block headers such that each packet comprises a plurality of service type fields, one service type field for each block header.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined system and method of Izawa and Humphrey with the teaching of Satran in showing a packet can be transmitted in a way that it can contain a plurality of block headers and hence a plurality of service type fields such that show the packet structure of Izawa and Humphrey will comprise the first and second payload sections, which carry data having different service types as identified by the First and Second Service Type fields.

The motivation to do so is to attach a classification to the data being transmitted or received so that it will expand the processing capabilities of multicast transmission systems by allowing transmitters or receivers to concurrently function in a separate service mode that is unique from the service mode of other transmitters or receivers.

Regarding claims 11 and 12, Izawa discloses a computer-readable data structure of a computer data signal, encoded on a computer-readable medium (see Figs 2 and 4), for organizing data for transport, the structure comprising:

a L2 (AAL/SAR) layer is composed of L2-PDUs (Fig. 10), comprising a first header section and a first payload section associated with the first header section (**L3-PDU is a packet that is composed of a plurality of L2-PDUs, comprising a header section and a payload section in the first L2-PDU called BOM, and the first header section is associated with first payload section, see Fig. 10), a second header section, and a second payload section associated with the second header section (comprises a second header section and a second payload section in the last L2-PDU called EOM, and the second header section is associated with second payload section, see Fig. 10), and a trailer section (a trailer section of the L2-PDU, see Fig. 10), and a trailer section (a trailer section of the L2 unit, see Fig. 10), and wherein the first header section comprises a First Service Type field (the first header of a first L2-PDU comprises an access control field to indicate an upward transmission channel; note that upward transmission channel is considered as a first service type, see col. 3, lines 61-67 and col. 4, lines 1-4 and Fig. 4), and wherein the contents of the First Service Type field are responsive to the contents of the first payload section (when access control field indicates upward transmission channel, then the contents of the access control field are responsive to those L2-PDUs that are transmitted for upward transmission, see col. 3, lines 61-67 and col. 4, lines 1-4), and the contents of the Second Service Type field are responsive to the contents of the second payload section (when access control field indicates downward transmission channel, then the contents of the access control field are responsive to those L2-PDUs that are transmitted for downward transmission, see col. 3, lines 61-67 and col. 4, lines 1-4).**

Izawa does not explicitly show encapsulating the L2 (AAL/SAR) layer in a single packet.

However, Humphrey discloses encapsulating a plurality of AAL2 mini-cells in a superframe (col. 3, lines 54-55, col. 4, lines 63-67, col. 5, lines 1-16 and Fig. 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system and method of Izawa in showing a first header, a first payload, a first trailer, a second header and a second trailer in L2 (AAL/SAR) layer with the teaching of Humphrey in encapsulating a plurality of AAL2 mini-cells in a superframe such that show encapsulating the L2 (AAL/SAR) layer in a single packet/superframe.

The motivation to do so is to provide an engineering operations channel EOC frame/superframe (single packet) that facilitates multiplexing of messages associated with various network management layers over the EOC.

Izawa and Humphrey do not explicitly show the first and second payload sections carry data having different service types as identified by the First and Second Service Type fields.

However, Satran teaches a packet can be transmitted in a way that it can contain a plurality of block headers, wherein each of the block headers comprises a service type field to designate a different service type/mode to be provided (each block header comprises a service type field located in the first three bits of the address field, col. 5, lines 6-15, 23-25, col. 4, lines 17-60 and Fig. 2). In other words, each packet can be constructed using a plurality of block headers such that each packet comprises a plurality of service type fields, one service type field for each block header.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined system and method of Izawa and Humphrey with

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the teaching of Satran in showing a packet can be transmitted in a way that it can contain a plurality of block headers and hence a plurality of service type fields such that show the packet structure of Izawa and Humphrey will comprise the first and second payload sections, which carry data having different service types as identified by the First and Second Service Type fields.

The motivation to do so is to attach a classification to the data being transmitted or received so that it will expand the processing capabilities of multicast transmission systems by allowing transmitters or receivers to concurrently function in a separate service mode that is unique from the service mode of other transmitters or receivers.

Response to Arguments

3. Applicant's arguments filed on 7/24/2007 with respect to claims 9-12 have been fully considered but are moot in view of new ground(s) of rejection.

Allowable Subject Matter

4. Claims 1-8, 13-20 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

In claim 1, a method for transporting data, comprising:

the Final Payload Count Valid field, the Final Payload Count Valid field indicating whether or not the payload section includes a Final Payload Count field, the Final Payload Count field indicating an amount of data placed in the payload section.

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Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Mew whose telephone number is 571-272-3141. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Km
Kevin Mew
Work Group 2616


CHI PHAM
SUPERVISORY PATENT EXAMINER

9/27/07